Claims

1. A murine polypeptide designated p12 with the amino acid sequence as set forth in SEQ ID NO:2 or a polypeptide encoded by a polynucleotide which hybridises under stringent conditions to a polynucleotide having a nucleotide sequence as set forth in SEQ ID NO:1.

2. An isolated DNA molecule comprising a polynucleotide with the nucleotide sequence as set forth in SEQ ID NO:1 encoding murine p12 polypeptide or an isolated DNA molecule comprising a polynucleotide which hybridises under stringent conditions to a polynucleotide having a nucleotide sequence as set forth in SEQ ID NO:1

3. A human polypeptide designated p12 with the amino acid sequence as set forth in SEQ ID NO:4 or a polypeptide encoded by a polynucleotide which hybridises under stringent conditions to a polynucleotide having a nucleotide sequence as set forth in SEQ ID NO:3.

4. An isolated DNA molecule comprising a polynucleotide with the nucleotide sequence as set forth in SEQ ID NO:3 encoding human p12 polypeptide or an isolated DNA molecule comprising a polynucleotide which hybridises under stringent conditions to a polynucleotide having a nucleotide sequence as set forth in SEQ ID NO:3.

5. A method for identifying a compound with the ability to induce apoptosis by determining the compound's ability to mimic the interaction of p12 with a critical interaction partner required for the induction of apoptosis.

6. The method of claim 5, wherein, in the presence of a test compound, fusion proteins of p12 and an interaction partner are expressed in yeast or mammalian cells such that interaction of the binding partners leads to expression of a reporter gene product, and wherein a decrease in reporter gene expression is correlated with the compound's ability to interfere with binding of the interaction partners.

7. The method of claim 5, wherein p12 and its interaction partner, one of them being fused to a reporter gene product and the other one being immobilized on a suitable carrier, are incubated with the test compound and compound's effect on the interaction of the two proteins is determined by measuring the reporter activity.

8. The method of any one of claims 5 to 7, wherein the interaction partner of p12 is VDAC.

9. A method for identifying a compound with the ability to induce apoptosis by determining a compound's ability to upregulate p12 transcription.

10. The method of claim 9, wherein hematopoietic cells, which have been transfected with a reporter gene construct in which the reporter gene is under the control of the p12 promotor sequence, are incubated in the presence and absence of a test compound, and

an increase in reporter gene expression is correlated with the compound's ability to upregulate p12 transcription.

11. The use of a compound identified in a method of any one of claims 5 to 10 for the preparation of a medicament for the treatment and prophylaxis of proliferative disorders.

12. The use of claim 11, wherein the proliferative disorder is cancer.

13. An antibody against murine p12.

14. An antibody against human p12.